ASM09

INTERFACE PROGRAM IN BASIC

```
100 REM ASMO9- EXEC. FOR ASMO9.BIN
 200 CLEAR
 300 BL=1:REM DEL 10 FOR NO BLOADS
 400 HOME: VTAB (4): INVERSE
 500 D$=CHR$ (4) #PRINTD$ "PR#O"
 400 PRINTD#: "CLOSE"
 700 X = " THE MILL / APPLE ][ 6809 ASSEMBLER "
 800 X=LEN(X$)
 900 PRINTSPC(X):PRINT:PRINTX PRINTSPC(X):PRINT
 1000 X#=" (C) 1981 CONEJO COMPUTER PRODUCTS
 1100 PRINTSPC(X):PRINT:PRINTX#:PRINTSPC(X):PRINT
 1200 REM -----
 1300 REM ---- CONFIGURATION PARAMS
 1400 REM PRINTER PAGE DIM.
 1500 WD=78:DP=66:REM WIDTH.DEPTH
 1505 REM *** MEMORY & I/O CONSTANTS ***
 1510 MEM = 8192: REM>> LOAD HERE <<
 1700 ID=MEM:REM 6502 CODE HERE
1710 CODE=IO+256:REM 6809 CODE HERE
1800 SLOT=4:REM MILL SLOT#
1810 SN=SLOT*16:REM LSB OF I/O ADDR
1900 SLOT=49280+SN:REM SLOT->ADDR
2000 REM >>> 4 PAGE ZERO BYTES <<<
2100 RCMD=250:REM MAILBOX W/09 & ASMO9IO.BIN
2200 TCMD=RCMD+2:REM DITTO
2210 POKE TCMD+2, SN: REM USED BY ASMO9IO
2220 XFADR=512:REM $200, SEE XFILE
2300 REM --- END OF CONSTANTS
2400 REM -----
2500 LI=0:08=0:F1$="":PASS=1
2600 REM CRT DIM.
2800 REM GET '09 CODE
2900 ONERR GOTO 3200
3000 GOSUB16000
3100 GOSUB 15000:GOTO 3600
3200 HOME: FLASH
3300 PRINT"ASMO9.BIN OR ASMO9IO.BIN NOT FOUND"
3400 GOT03400
3500 REM ----
3400 HOME
3610 VTAB(4): INVERSE
3620 PRINT" SELECT DRIVE NUMBER, <CR>> FOR #1 ";
3630 NORMALIPRINT" "; CHR$(7); :GET Y$
3640 IF ASC(Y$)=13 THEN Y$="1"
3650 X=ASC(Y$):IF (X<=48)OR(X>50)THEN3600
3655 VTAB(4):HTAB(37):PRINTY$
3660 DR#=",D"+Y#
3665 REM DEFAULT LISTING SIZE!
3670 POKE CODE+3,38:POKE CODE+4,23
3680 REM <PRINTER W/O FORM FEED> POKE CODE+6,0
3700 VTAB(8) PRINT
3800 VTAB(8): INVERSE
3900 PRINT"ENTER SOURCE FILE NAME": CHR$(7)
4000 VTAB(8):HTAB(25)
4100 NORMAL: INPUT F#: GOSUB 15000
4200 PRINT
4300 IF F#="" THEN 3600
4400 D#=F#+".HEX"
4500 ONERR GOTO 4900
4600 F$=F$:PRINTD$:"VERIFY ":F$+DR$
4700 PRINTD#; "READ "; F#: PRINTD#: "CLOSE"
4800 GOTO 5200
5000 FLASH:PRINT"TEXT FILE: ":
```

```
5100 PRINTF$+DR$:" NOT FOUND":GOTO3700
5200 GOSUB 15000: VTAB (10): PRINTSPC (39): PRINT
5300 VTAB(13): INVERSE
5400 PRINT"WANT OBJECT CODE (Y/N)";
5500 GD8UB 15300:0B=Y
5600 IFY=-1 THEN 5300
5700 IF DB=0 THEN 6000
5800 ON ERR GOTO 5910
5900 PRINTD#; "DELETE "; O#
5910 GOSUB15000
6000 VTAB (15) INVERSE
               WANT LISTING (Y/N)";
6100 PRINT"
6200 GOSUB15300:LI=Y
6300 IFY=-1 THEN 6000
6400 POKE CODE+2, ((OB*128)+LI):REM TO A6M09.BIN
6500 IF LI=0 THEN 7700
6600 VTAB(17) INVERSE
6700 PRINT"SELECT LISTING DEVICE: "
6800 PRINT" (CR) = CRT, ";
6900 PRINT"# = SLOT # OF PRINTER":
7000 NORMAL:PRINT" ?";CHR#(7);:GET LI#
7100 PRINT LIS
7200 IF ASC(LI$)=13 THEN LI$="0":GDT07600
7300 X=ASC(LI#)
7400 IF (X<48) OR(X>55) THEN6600
7500 POKE CODE+3, WD:POKE CODE+4, DP
7600 INVERSE
7700 VTAB(23):PRINT"PASS 1, FILE: ";F$
7800 NORMAL
7900 GOSUB 13100 REM STARTUP MILL
8000 REM !!!PRINTD#; "OPEN ":F#
8100 PRINTD#; "READ ";F#
8110 FX$=F$
8200 REM: -- POLL --
8400 GOT08600
8500 REM *** (PREMATURE) EOF
8505 REM SEND -1 DATA TO ASSEMBLER
8510 GOSUB 15000
8520 POKE RCMD+1,255:POKE RCMD,0
8600 REM -----
8605 ONERR GOTO 8500
8610 CALL ID:REM GOTO 6502 CODE
8700 GOSUB15000
8800 RX=PEEK(RCMD): TX=PEEK(TCMD)
8900 REM RCMD: 1=OPEN, 2=READ, 3=REWIND
               4=STOP, 5=OPEN NEW, 6=RESUME MAIN
8910 REM
 9000 REM TCMD:1=LIST,2=BEGIN OBJ,3=BEGIN LIST
9100 IF TX THEN GOSUB 11200
 9200 IF RX>6 THEN STOP
 9300 ON RX GOSUB 10900,10800,9600,12500,10610,10700
 9400 POKE RCMD, 0
 9500 GOTO 8200
 9600 REM *** REWIND (3)
 9700 PRINT:PRINTDS: "CLOSE"
 9800 IF LIS="O" THEN HOME: INVERSE
 9900 PRINT"PASS 2. OBJECT FILE=";:NORMAL
 10000 IF OB=0 THENPRINT"(NONE)":GOTO 10300
 10100 PRINT" "10$
 10200 GOSUB15000:PRINTD$; "OPEN "; O$
 10300 PRINTD##"PR# ";LI#
 10310 FX#=F#
 10400 PRINTD#; "READ ":FX#
 10500 POKE TCMD, 0: PA88=2
 10600 RETURN
```

```
10610 REM *** READ AN XFILE (5)
 10620 X=XFADR:F14="":POKE RCMD+1,0
 10630 X1=PEEK(X): IF X1=0 THEN 10650
 10640 F1#=F1#+CHR#(X1):X=X+1:GOTO 10630
 10650 ON ERR GOTO 10690
 10652 IF F1#<>""THENPRINTD#;"VERIFY ";F1#:FX##F1#
10655 6080815000
 10666 PRINTD#; "READ "; FX#
 10670 RETURN
 10690 GOSUB 15000:POKE RCMD+1,255:REM ERROR
 10692 PRINT
 10693 PRINTF1#;" NOT FOUND";CHR#(7)
10696 FX$=F$:F1$="":RESUME
10700 REM *** RESUME READ OF MAIN (6)
10710 PRINTD#; "CLOSE "; FX#
10720 FX$=F$:F1$=""
10730 PRINTD#; "READ "; FX#
10740 RETURN
10800 REM *** READ (2)
10810 STOP
10900 REM *** OPEN (1)
11000 RETURN
11100 REM ----
11200 REM TCMD ACTION
11300 ON TX GOTO 11500,11600,11900
11400 STOP:REM TX>3
11500 STOP: REM TX=1 DONE IN ASMO9IO
11600 REM TX=2 START HEX
11700 PRINTD#:REM GOOD OLE DOS!
11800 PRINTDS; "WRITE "; 05: GOTO 12200
11900 REM TX=3=END HEX
12000 PRINT
12100 PRINTD#: "READ ":FX#
12200 POKE TCMD, 0
12300 RETURN
12400 REM ----
12500 REM END PASS 2
12600 PRINTD## "PR# 0"
12700 PRINTD#: "CLOSE"
12800 POKE SLOT+2,0
12900 END
13000 REM
13100 REM INITIALIZE THE MILL
13200 POKE RCMD, O: POKE TCMD, O
13300 BB=128
13400 POKE SLOT+0, BB
13500 POKE SLOT+1,88
13600 PDKE SLOT+2.0
13700 POKE SLOT+3.88
13800 POKE SLOT+4.88
13900 POKE SLOT+5, BB
14000 POKE SLOT+7,88
14100 REM SETUP 09'S RESTART
14200 REM JMP CODE
14300 REM
          AT $40FA
14400 X=PEEK(65534) *256+PEEK(65535)
14500 POKE X+0,126:REM $7E
14600 POKE X+1, CODE/256
14700 POKE X+2, CODE-(256*(CODE/256))
14800 REM ASMO9IO STARTS UP '09
14900 RETURN
15000 REM *** KILL ON ERR
15100 POKE 216,0
15200 RETURN
```

15300 REM GET Y/N REPLY
15400 Y=-1
15500 NORMAL:PRINT" ?";CHR*(7);:GET Y*
15600 PRINTY*;
15700 IF Y*="Y" THEN Y=1
15800 IF Y*="N" THEN Y=0
15900 PRINT:RETURN
16000 REM STARTUP
16700 IF BL=0 THEN FOR I=1T0500:NEXT I:RETURN
16900 VTAB(22):HTAB(8)
17000 FLASH:PRINT"STANDBY- BLOAD RUNNING"
17100 NORMAL
17200 PRINTD*;"BLOAD ASMO9.BIN,A",STR*(CODE)
17300 PRINTD*;"BLOAD ASMO910.BIN,A"STR*(IO)

17400 RETURN 17500 REM LAST LINE

ASM09IO

INTERFACE SUBROUTINE FOR ASM09

```
SOURCE FILE: ASMO910
00000:
                 1 *
0000:
                 2 **************
:0000
                 3 * (C) 1981, CONEJO COMPUTER PRODUCTS
0000:
                 4 * 3655 THOUSAND OAKS BL.
0000:
                 5 * WESTLAKE VILLAGE, CA
                                            91362
0000:
                 6 *
                       ALL RIGHTS RESERVED
                 フ *
0000:
0000:
                 8 ***** ASMO9IO.TXT, 6502 CODE *****
0000:
                 9 *
0000:
                10 *
                     >> THIS 6502 CODE IS POSITION-INDEPENDENT
0000:
                11 *
                         AND CAN BE RELOCATED AT "BLOAD"-TIME
0000:
                12 *
0000:
                13 * THIS PROGRAM INTERFACES ASMO9, THE BASIC
0000:
                14 * CODE TO ASMO9.BIN, THE 6809 CODE
0000:
                15 *
2000:
                16 CODEAT
                           EQU
                               8192
                                          WHERE ASMO9.BIN GOES
---- NEXT OBJECT FILE NAME IS ASMO910.0BJ0
1E00:
                17
                           ORG CODEAT-512 WHERE ASMO910.BIN GOES
1E00:
                18 *
1E00:
                19 * DOS ADDRESSES:
1E00:
                20 *
FDED:
                21 COUT
                           EQU
                                $FDED
                                          CHAR OUT
FDOC:
              . 22 CIN
                           EQU
                                #FDOC
                                          CHAR IN
1E00:
                23 *
                24 * PAGE ZERO MAILBOXES W/BASIC AND ASMO9
1E00:
1E00:
                25 *
OOFA:
                26 RXCMD
                           EQU
                                250
                                          MAILBOX W/6809
                27 TXCMD
OOFC:
                           EQU RXCMD+2
                                          DITTO
1E00:
                28 * ASMO9 POKES SLOT# * 16 HERE:
OOFE:
                29 SLOTNO EQU
                               TXCMD+2
                                          BASIC POKES IT HERE
1E00:
                30 * EG: IF MILL IN SLOT 4, C(SLOTNO)=$40
                31 *
1E00:
1E00:
                32 * REGISTERS WITHIN THE MILL
1E00:
                33 *
C080:
                34 SLOTO
                           EQU
                                $C080
                                          ADDR OF SLOT O
C081:
                35 RUN09
                           EQU
                                SLOTO+1
                                          IO ADDR+2 IS RUN BIT
C082:
                36 RESET
                           EQU SLOTO+2
                                          6809 RESET, 1=FALSE
                37 *
1E00:
                38 * PROTOCOL CODES USED HEREIN, OTHERS IN BASICO9
1E00:
1E00:
                39 *
0001:
                40 LISTCH EQU
                                          SEND CHAR TO LISTING
                               1
0002:
                41 READCH
                           EQU 2
                                          READ CHAR FROM DISK
1E00:
                42 *
                ********************
1E00:
                44 * BASIC DOES A "CALL IO" TO HERE: *
1E00:
1E00:
                45 *********************
1E00:
                46 *
1E00:A4 FE
                47
                           LDY
                                SLOTNO
                                          GET IDADDRESS LOW PART
1E02:A9 80
                48
                           LDA
                                #集日〇
1E04:99 82 CO
                                RESET, Y
                                          SET RESET=FALSE
                49
                           STA
                                          SET RUN=1
1E07:99 81 CO
                50
                           STA
                                RUNO9, Y
                51 *
1EOA:
1E0A: A2 00
                52 A000
                           LDX
                                #O
                                          CONSTANT
                           LDY
                                          GET SLOT NO.
1E0C: A4 FE
                53
                                SLOTNO
                                          SET RUN=1
                54
1E0E: A9 80
                           LDA
                                #$80
                           STA
                                RUNO9, Y
1E10:99 81 CO
                55
1E13:
                56 *
1E13:
                57 *
1E13:
                58 *
                59 *
1E13:
```

```
.1E13:
                  60 ¥
1E13:
                  61 *
1E13:
                  62 *
1E13:
                  63 *
 LE13:
                  64 *
                  65 *
1E13:
1E13:A5 FA
                  66 A100
                              LDA
                                   RXCMD
                                               ANYTHING ON RCV?
1E15:F0 17
                  67
                              BEQ
                                               IF NO
                                    B100
                                    #READCH
                                               IS IT "READ A CHARACTER" ?
1E17:C9 02.
                  68
                              CMP
                                               IF SO, DO IT
1E19:F0 05
                  69
                              BEQ
                                    A200
1E1B:
                  70 * ALL OTHER COMMANDS HANDLED BY BASIC
1E1B:8A
                  71
                              TXA
                                               ZERO
1E1C:99 81 CO
                  72
                                   RUN09, Y
                                               HALT THE 09
                              STA
1E1F: 60
                  73
                              RTS
                                               RETURN TO BASIC
1E20:
                  74 *
1E20:
                  75 * IS READ A CHAR FROM SOURCE FILE CMD
1E20:
                  76 *
1E20:8A
                  77 A200
                              TXA
                                               ZERO
1E21:99 81 CO
                  78
                              STA
                                    RUNO9, Y
                                               HALT THE 09
1E24:20 OC FD
                  79
                                               FETCH CHAR
                              JSR
                                    CIN
1E27:85 FB
                  80
                              STA
                                    RXCMD+1
                                               PASS VIA MAILBOX
                  81
1E29:86 FA
                              STX
                                    RXCMD
                                               RESET COMMAND
1E2B: 18
                  82
                              CLC
1E2C:90 DC
                                               (JMP) NEXT COMMAND
                  83
                              BCC
                                    AQQQ
                  84 *
1E2E:
1E2E:
                  85 * POLL THE OTHER SIDE, OUTPUT FROM THE 09
1E2E:
                  86 *
                                    TXCMD
                                               ANY COMMAND?
1E2E: A5 FC
                  87 B100
                              LDA
1E30:F0 E1
                  88
                              BEQ
                                               IF NO
                                    A100
                  89
                                                SEND TO LISTING?
1E32:C9 01
                              CMP
                                    #L1STCH
                                               IF NO
 E34:D0 10
                  90
                              BNE
                                    B300
 1E36:
                  91 *
1E36:
                  92 * SEND LISTING CHARACTER
1E36:
                  93 *
                  94
1E35:8A
                              TXA
                                               ZERO
1E37:99 81 CO
                  95
                                    RUNO9.Y
                                               STOP THE 09
                              STA
                  96 *
                          IN CASE I/O NEEDS FULL SPEED 6502
1E3A:
                                               GET DATA
1E3A: A5 FD
                  97
                                    TXCMD+1
                              LDA
1E3C:09 80
                  98
                              ORA
                                    #$80
                                               MERGE MSB
1E3E:20 ED FD
                  99
                                    COUT
                                               SEND CHAR
                              JSR
1E41:86 FC
                 100
                                               RESET COMMAND
                              STX
                                    TXCMD
1E43:18
                 101
                              CLC
1E44:90 C4
                              BCC
                                    A000
                                               CONTINUE POLL
                 102
1E46:
                 103 *
1E46:
                 104 * IS START/STOP OBJECT
1E46:
                 105 *
1E46:8A
                 106 8300
                              TXA
                                               STOP 109
1E47:99 81 CO
                              STA
                                    RUNO9, Y
                 107
                 108
                              RTS
                                               GOTO BASIC
1E4A:60
1E4B:
                 109 *
1E4B:
                 110 *
                 111 **** END OF TEXT *****
1E4B:
```

*** SUCCESSFUL ASSEMBLY: NO ERRORS

LOAD09

6502 PROGRAM TO LOAD PROGRAMS FOR THE MILL

```
SOURCE FILE: LOADO9
0000:
                  1 * LOADO9 - 6502 M/L
 00001
                  2 * FILENAME=LOADO9.BIN
 00000
                  3 * REV: 5/9/81
 1000
                  4 *
  ---- NEXT OBJECT FILE NAME IS LOADO9.OBJO
 4000:
                  5
                            ORG $6000
                                          <<< CHANGE AS NEEDED <<<
 6000:
                  6 *
 6000:
                  7 * THE CALLER OF THIS SUBROUTINE MUST
 6000 r
               8 * OPEN AN ASMO9 HEX FILE AND ISSUE A READ
 6000:
                  9 * COMMAND TO DOS. THIS CODE READS ALL DATA
 6000:
                 10 * RECORDS, STORES ALL DATA, AND RETURNS
6000:
                 11 * AFTER PROCESSING THE "END" RECORD.
 4000:
                 12 * ON RETURN, THE END RECORD'S STARTING
6000:
                 13 * ADDRESS IS IN LOCATIONE:
OOFA:
                 14 XFERHI
                            EQU: 250
                                            MOST
                                                  SIGNIF. BITS
OOFB:
                 15 XFERLO
                            EQU
                                  251
                                            LEAST SIGNIF. BITS
4000:
                 16 *
6000:
                 17 *
FDOC:
                 18 INCH
                            EQU
                                  $FDOC
                                            READ CHAR FROM INPUT
6000:
                 19 *
6000: DB
                 20 START
                            CLD
                                            NO DECIMAL
6001:
                 21 *
6001:20 OC FD
                 22 A100
                            JSR
                                 INCH
                                            GET CHAR
6004:29 7F
                 23
                            AND
                                 井事フ戸
6006: C9 3A
                 24
                            CMP
                                 AC##
                                            ":". START OF RECORD
6008:D0 F7
                 25
                            BNE
                                 A100
600A:20 48 60
                 26
                            JSR
                                 HEX2
                                            READ RECORD TYPE
600D:C9 03
                 27
                            CMP
                                 #3
                                            ="END"
600F:F0 2C
                 28
                            REQ
                                 B200
                                            IF END RECORD
 011:09 01
                 29
                            CMP
                                 #1
                                            ="DATA"
5013:F0 04
                 30
                            BEQ
                                 B100
6015:00
                 31
                            BRK
                                            ILLEGAL RECORD
6016:4C 00 60
                 32
                            JMP
                                 START
6019:
                 33 *
6019:
                 34 * PROCESS DATA RECORD
6019:
                 35 *
6019:20 48 60
                36 B100
                            JSR
                                 HEX2
                                           GET ADDRESS-HI
601C:8D 2E 60
                 37
                            STA
                                 B160+2
                                           SETUP INDIRECT
601F:20 48 60
                38
                            JSR
                                HEX2
                                           GET ADDRESS-LO
6022:8D 2D 60
                39
                            STA
                                 B160+1
6025:20 48 60
                40
                            JSR
                                 HEX2
                                           GET COUNT
6028:AA
                41
                            TAX
                                           SAVE COUNT
6029:20 48 60
                42 B150
                            JSR
                                 HEX2
                                           GET DATA BYTE
                43 B160
602C:8D FF FF
                                 $FFFF
                            STA
                                           STORE DATAA
602F:EE 2D 60
                44
                            INC
                                 B160+1
                                           ADVANCE POINTER
6032:D0 03
                45
                            BNE
                                 B170
6034:EE 2E 60
                46
                            INC
                                 B160+2
                                           16 BIT ADDR
6037:CA
                47 B170
                            DEX
                                           LOOP ON RECORD COUNT
6038:DO EF
                48
                            BNE
                                 B150
603A:4C 01 60
                49
                            JMP
                                 A100
                                           NEXT RECORD
603D:
                50 ×
603D:
                51 * PROCESS END RECORD
603D:
                52 *
603D:20 48 60
                53 B200
                            JSR HEX2
                                           GET HI OF STARTING ADDRESS
6040:85 FA
                54
                            STA
                                 XFERHI
                                           STORE IT
 042:20 48 60
                55
                           JSR
                                 HEX2
                                           GET LOW OF STARTING ADDRESS
6045:85 FB
                56
                            STA
                                 XFERLO
                                           STORE IT
60471
                57 *
60471
                58 *
6047:
                59 *
```

```
6047:
                   60 ×
N 6047:
                   61 *
 6047:
                   62 *
 6047:
                   63 *
 6047:
                   64 *
 5047:
                   4 26
 6047:
                   66 *
 6047:
                   67 * RETURN TO CALLER
 6047:
                   4 86
 6047:60
                   69
                               RTS
 6048:
                   70 *
 6048:
                   71 *********************
 6048:
                   72 *
 6048:
                   73 * READ TWO HEX/ASCII BYTES, RETURN
 6048<sub>1</sub>
                   74 * BINARY EQUIVALENT IN Y.
 6048:
                   75 *
 6048:20 5A 60
                   76 HEX2
                               JSR
                                    HEX1
                                               READ IST
 604B:0A
                   77
                               ASL
                                    Α
                                                MSB
 604C:0A
                   78
                               ASL
                                    Α
 604D: 0A
                   79
                               ASL
                                    Α
 604E: 0A
                   80
                               ASL
                                    Α
 604F:8D 59 60
                   81
                               STA
                                    HEX2X
 6052:20 5A 60
                   82
                               JSR
                                                GET 2ND
                                    HEX1
 6055:0D 59 60
                   83
                               ORA
                                    HEX2X
                                               MERGE
 6058:60
                   84
                               RTS
 6059:00
                   85 HEX2X
                               DFB
                                    0
 605A:
                   86 *
 605A:
                   87 * READ AND CONVERT 1 HEX CHAR
 605A:
                   88 * RETURN BINARY EQUIVALENT IN ACCUM.
 605A:
                   89 *
 605A:20 OC FD
                   90 HEX1
                               JSR
                                    INCH
                                               GET CHAR
 505D:29 7F
                   91
                               AND
                                    井事フド
                                               KILL MSB
 605F:C9 3A
                   92
                               CMP
                                    #$39+1
                                                97+1
 6061:30 03
                   93
                                                IF 0..9
                               BMI
                                    HEX1A
 6063:38
                   94
                               SEC
 6064:E9 37
                   95
                               SBC
                                    #55
                                               MAKE 10..15
 6066:29 OF
                   96 HEX1A
                               AND
                                    ##OF
                                               4 BITS
 6068:60
                   97
                               RTS
                                               IN ACCUM
 6069:
                   98 *
 60691
                   99 * LAST LINE
 60691
                  100 *
```

*** SUCCESSFUL ASSEMBLY: NO ERRORS

6001 A100 6037 B170 6048 HEX2 FA XFERHI 6019 B100 603D B200 6059 HEX2X FB XFERLO 6029 B150 605A HEX1 FDOC INCH 602C R160 6066 HEXIA 6000 START

SAMPLE OF LOADER FORMAT

011000022002

:0110023A0628328D016AAE8CF7318D0065A6A0A78026FAC630318D00676C26A62681392341E7266 C25A62581392337E7256C24A6248139232DE7247DC030

:01103C386C23A62381392320E7236C22A62281392316E7226C21A6218139230CE7216CA4A6A4813 72302E7A4308D000C10AE8C96A680A7A026FA20A1

:0110740E3638303920434F554E54494E4720

:01108208303030303030303000

031000

DEMO1

1

```
* FILE=DEMO1.TXT
           * 6809 / APPLE DEMO PROG
           * RUNS A COUNTER ON TOP LINE
                          OPT
                                 NUM
11
                                            <<< CHANGE AS DESIRED <<<
                                 4096
                          ORG
12 1000
                                            CRT ADDRESS
                                  $7FQ
                  SCREEN EQU
           07F0
13
                                            I/O FOR SPEAKER
                                  $CO30
                  BEEP
                          EQU
           C020
14
                          BRA
                                  BEGIN
                  START
15 1000 2002
                                            SCREEN ADDR
                                  $628
                          FDB
                  ADDR
16 1002 0628
                                  END+232, PCR SET STACK POINTER
18 1004 328D016A BEGIN
                          LEAS.
                                            SCREEN ADDRESS
                                  ADDR, PCR
                          LDX
19 1008 AEBCF7
                                            "6809 COUNTING ...."
                                  MSG1,PCR
                          LEAY
20 1008 31800065
                                  , Y+
                          LDA
21 100F A6A0
                  L100
                                  , X+
                          STA
22 1011 A780
                                  L100
                          BNE
23 1013 26FA
                                  # º O
                                             ASCII ZERO
                  L200
                          LDB
25 1015 C630
                                  MSG1A, PCR BUFFER ADDRESS
                          LEAY
26 1017 318D0067
                                             FROM HERE WE INCREMENT BCD DIGITS
                          INC
                                  6,Y
27 101B 6C26
                                             BY ADDING 1 TIL '9' THEN DO CARRY
                          LDA
                                  6, Y
28 101D A626
                                  #19
                          CMPA
29 101F 8139
                                  L300
30 1021 2341
                          BLS
                                  6,Y
                          STB
31 1023 E726
                                  5, Y
32 1025 6025
                          INC
                                  5, Y
33 1027 A625
                          LDA
                          CMPA
                                  #'9
34 1029 8139
                                  F200
                          BLS
35 102B 2337
                                  5, Y
                          STB
36 102D E725
                          INC
                                  4,Y
37 102F 6C24
                                  4,Y
38 1031 A624
                          LDA
                                  #'9
                          CMPA
39 1033 8139
                                  L300
                          BLS
40 1035 232D
41 1037 E724
                          STB
                                  4, Y
                                  BEEP
                                             CLICK SPEAKER
42 1039 7DC030
                          TST
                                  3, Y
                          INC
43 1030 6023
                                  3, Y
                          LDA
44 103E A623
                                  # 9
                          CMPA
45 1040 8139
                          BLS
                                  L300
46 1042 2320
                          STB
                                  3,Y
47 1044 E723
                                  2, Y
                          INC
48 1046 6C22
                          LDA
                                  2, Y
49 1048 A622
                                  #19
                          CMPA
50 104A 8139
                                  L300
51 104C 2316
                          BLS
                                  2.Y
                          STB
52 104E E722
53 1050 6C21
                           INC
                                  1, Y
54 1052 A621
                          LDA
                                  1,Y
                                  #"9
                          CMPA
55 1054 8139
                                  L300
                          BLS
56 1056 230C
                                  1,Y
57 1058 E721
                           STB
                                  , Y
                           INC
58 105A 6CA4
                                  , Y
                           LDA
59 105C A6A4
                                  #19
                           CMPA
60 105E 8139
                                  L300
                           BLS
51 1060 2302
                                  , Y
                           STB
62 1062 E7A4
                                             SEND DATA TO CRT
                                   MSG1, PCR
64 1064 308D000C L300
                           LEAX
                           LDY
                                  ADDR, PCR
65 1068 10AE8C96
```

2

EMO1.TXT - A SIMPLE DEMONSTRATION OF 6809+APPLE C) 1981, CONEJO COMPUTER PRODUCTS

MOVE LOCAL TO CRT MEMORY , X+ L400 LDA 66 106C A680 , Y+ STA 106E A7A0 L400 BNE 35 1070 26FA MAIN LOOP L200 BRA 69 1072 20A1 "6809 COUNTING " 71 1074 3638303920 MSG1 FCC 71 107A 434F354E54494E47 71 1082 20 "0000000",0 72 1082 3030303030 M8B1A FCC 72 1088 303000 MSG1A-MSG1 EQU OOOE CNT 73 EQU 108A END 74 START END 1000 76

DEMO1.TXT - A SIMPLE DEMONSTRATION OF 6809+APPLE (C) 1981, CONEJO COMPUTER PRODUCTS

13 SYMBOLS IN TABLE:

DR \$1002 BEEP =C030 BEGIN \$1004 CNT =000E END =108A L100 \$100F L200 \$1015 L300 \$1064 L400 \$106C MSG1 \$1074 MSG1A \$1082 SCREEN=07F0 START \$1000

SYMBOL TABLE END: 417D

O STATEMENT ERROR(S), LAST PC:1089



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THE MILL, 6809 ASSEMBLER PKG., VI

NAME	
FIRM	
STREET	
CITY/STATE	
COUNTRY	
	SED: MONTH: DAY:, YEAR: 19
	400 cm
THE MILL SE	RIAL NUMBER -,
APPLICATION, please check ones 4	
	DUSTRIAL END-USER [] SCHOOL [] HORBY []
SOFTWARE DE	VELOPER [] OTHER []
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